



Evaluating the impact of Affordable Care Act repeal on America's opioid epidemic

Leana S. Wen¹*, Evan B. Behrle¹, Alexander C. Tsai^{2,3}

- 1 Baltimore City Health Department, Baltimore, Maryland, United States of America, 2 Chester M Pierce, MD Division of Global Psychiatry, Massachusetts General Hospital, Boston, Massachusetts, United States of America, 3 Harvard Center for Population and Development Studies, Cambridge, Massachusetts, United States of America
- * health.commissioner@baltimorecity.gov

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The November 2016 United States elections resulted in a Republican sweep of the presidency and both chambers of Congress. Republicans' first major policy priority has been to "repeal and replace" the Obama administration's effort to reform healthcare, the Patient Protection and Affordable Care Act (ACA), signed into law in 2010. While the repeal process faltered in the Senate, suffering a major legislative defeat in late July 2017, its resurrection remains a possibility. To date, a key component of proposed legislation from both the House and Senate has been severe cuts to Medicaid, which currently provides the lion's share of health insurance for low-income Americans.

These legislative proposals have been introduced at a time when the U.S. is experiencing an epidemic of opioid addiction and overdose. In 2015, there were more than 2.6 million Americans with opioid use disorder (OUD) [1]. During the same year, more than 33,000 Americans died of overdoses involving one or more opioids, corresponding to an age-adjusted opioid-related death rate of 10.4 per 100,000 [2]—more than triple the rate in 2000 [3]. The U.S. now accounts for about a quarter of the world's drug-related deaths [4].

The tragedy of opioid overdose is compounded by the fact that evidence-based treatments have existed for more than 4 decades. The acute phase effects of opioid overdose can be blocked through the administration of naloxone, a U.S. Food and Drug Administration (FDA)-approved medication available at many pharmacies. In the chronic phase, persons with the disease of OUD can be successfully treated and enter long-term recovery through a combination of medication-assisted treatment (MAT) and psychosocial support. The FDA has approved three medications for MAT—methadone, buprenorphine, and naltrexone—all of which are currently available in generic form (with the exception of extended-release naltrexone). Notwithstanding rhetoric about "replacing one drug with another"—or more legitimate concerns about adverse effects like respiratory depression—evidence for the efficacy of MAT prescribed in combination with psychosocial support in the treatment of OUD is robust: it suppresses illicit drug use more effectively than placebo and other treatments that do not use MAT [5–6], and it reduces criminal behavior [7] and both all-cause and overdose mortality [8].

Despite this evidence, only 1 in 10 Americans with substance use disorders receive treatment [1]. Nearly one-third of all those who did not seek treatment cite cost or lack of insurance coverage as a reason [1]. The treatment gap represents a substantial inefficiency for American taxpayers given that treatment can pay for itself by averting the medical morbidity



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Abbreviations: ACA, the Patient Protection and Affordable Care Act; FDA, Food and Drug Administration; MAT, medication-assisted treatment; OUD, opioid use disorder.



and mortality—including HIV infection, overdoses, and hepatitis C—services utilization, and criminality associated with substance abuse [9]. According to the National Institutes of Health, every \$1 invested in addiction treatment saves society \$12 [10].

Medicaid cuts like the kind proposed in Congress [11–13] would make it significantly harder for those with OUD to access treatment. Nearly one-third of all those who receive substance use disorder treatment rely on Medicaid [1], and the program's support for OUD treatment has grown rapidly in recent years, with growth concentrated in states that participated in the ACA's expansion of Medicaid [14].

The importance of Medicaid in the treatment of OUD cannot be overstated for cities like Baltimore, where it provides coverage to one-third of all residents [15]. In Baltimore, Medicaid enrollees can purchase two doses of naloxone for \$1—a potentially lifesaving discount compared with the \$100-\$4,500 sticker price [16]. A 2015 blanket prescription for naloxone issued by the first author (LSW), empowered by legislation passed by the Maryland legislature, enabled every Baltimore resident to receive training and obtain naloxone at any pharmacy. Between 2015 and 2017, approximately 1,000 lives were saved in Baltimore by lay people administering naloxone [17]. Other major efforts to combat the opioid epidemic in Baltimore would be severely compromised if Medicaid were cut, including programs to expand access to MAT and to construct a behavioral health crisis center to stabilize patients and connect them with care.

Plans to repeal and replace the ACA have threatened access to OUD treatment in another way: they would weaken or even eliminate the requirement that marketplace plans cover "essential health benefits," which currently require insurance companies to cover OUD treatment. This means that, in addition to the millions of Americans who would lose their health insurance coverage entirely, there would also be many more **insured** Americans whose insurance would no longer cover OUD treatment [18]. The plans would also have allowed states to waive the requirement to cover preexisting conditions, immediately pricing people with OUD out of the individual market.

One version of the Senate bill attempted to ameliorate the effects of the Medicaid cuts by including \$45 billion set aside for OUD treatment. This amount, however, would not adequately compensate for the reduction in future outlays associated with the loss of Medicaid and marketplace coverage: one estimate places the cost of treating OUD and its common comorbidities among Americans at or below 200% of the federal poverty line at \$183 billion over the next 10 years [19].

Based on our reading of the evidence, Medicaid cuts of the kind proposed in House and Senate bills would have devastating consequences for the millions of Americans suffering from OUD. Patients who lose health insurance coverage and the ability to pay for their treatment may go into withdrawal and see no other choice but to turn to illicit opioids—with overdose and death as the possible result.

The consequences of untreated addiction extend beyond individual patients. Pregnant women with OUD are at risk for giving birth to babies with neonatal abstinence syndrome [20–21]. Children who grow up in homes affected by substance abuse are much more likely to suffer from OUD themselves as adults [22]. Parental incarceration for OUD-associated criminal activity also has deleterious intergenerational health and economic consequences [23–24].

No matter what, the American people will bear the cost of this epidemic—either by paying for treatment now or by paying for the medical, economic, and social consequences of denying it later. The choice should be clear.



Author Contributions

Conceptualization: Leana S. Wen, Evan B. Behrle, Alexander C. Tsai.

Writing – original draft: Leana S. Wen, Evan B. Behrle.

Writing - review & editing: Leana S. Wen, Evan B. Behrle, Alexander C. Tsai.

References

- Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. Results from the 2015 National Survey on Drug Use and Health: detailed tables. Rockville (MD): Substance Abuse and Mental Health Services Administration; 2016.
- Rudd RA, Seth P, David F, Scholl L. Increases in drug and opioid-involved overdose deaths—United States, 2010–2015. MMWR. Morbidity and mortality weekly report. 2016 Dec 30;65(5051):1445.
- 3. National Vital Statistics System, Mortality. CDC WONDER. Atlanta (GA): U.S. Department of Health and Human Services, CDC; 2016. https://wonder.cdc.gov/.
- United Nations Office on Drugs and Crime. World Drug Report 2017. Vienna (Austria): United Nations, United Nations Office on Drugs and Crime; 2017.
- Mattick RP, Kimber J, Breen C, Davoli M. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. Cochrane Database Syst Rev. 2008 Apr; 2(2).
- Mattick RP, Breen C, Kimber J, Davoli M. Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. The Cochrane Library. 2009 Jul 8.
- 7. Marsch LA. The efficacy of methadone maintenance interventions in reducing illicit opiate use, HIV risk behavior and criminality: a meta-analysis. Addiction. 1998 Apr 1; 93(4):515–32. PMID: 9684390
- Sordo L, Barrio G, Bravo MJ, Indave BI, Degenhardt L, Wiessing L, et al. Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. bmj. 2017 Apr 26; 357:j1550. https://doi.org/10.1136/bmj.j1550 PMID: 28446428
- Wickizer TM, Mancuso D, Huber A. Evaluation of an innovative Medicaid health policy initiative to expand substance abuse treatment in Washington State. Medical Care Research and Review. 2012 Oct; 69(5):540–59. https://doi.org/10.1177/1077558712447075 PMID: 22618867
- National Institute on Drug Abuse. Principles of drug addiction treatment: A research-based guide. 3rd ed. Bethesda (MD): National Institute on Drug Abuse, National Institutes of Health; 2012.
- Congressional Budget Office. Cost estimate: H.R. 1628 American Health Care Act of 2017. 2017 May 24. https://www.cbo.gov/system/files/115th-congress-2017-2018/costestimate/hr1628aspassed.pdf
- Congressional Budget Office. Cost estimate: H.R. 1628 Better Care Reconciliation Act of 2017. 2017 Jun 26. https://www.cbo.gov/system/files/115th-congress-2017-2018/costestimate/52849hr1628senate.pdf
- Congressional Budget Office. Cost estimate: H.R. 1628 Better Care Reconciliation Act of 2017. 2017 Jun 26. https://www.cbo.gov/system/files/115th-congress-2017-2018/costestimate/52849hr1628senate.pdf
- **14.** Clemans-Cope L, Epstein M, Kenney GM. Rapid growth in Medicaid spending on medications to treat opioid use disorder and overdose. The Urban Institute. 2017 Jun 28.
- Maryland Medicaid eHealth Statistics: MCO Enrollment. Baltimore (MD): Maryland Department of Health. www.md-medicaid.org/mco/index.cfm
- Managan D, Tirrell M. As opioid epidemic grows, so do prices of lifesaving overdose drugs. CNBC. 2016 Sep 23. http://www.cnbc.com/2016/09/23/as-opioid-epidemic-grows-so-do-prices-of-lifesaving-overdose-drugs.html
- 17. Harris M. Opioid overdose medication naloxone on short supply in Baltimore. Baltimore Magazine. 2017 Jul 5. http://www.baltimoremagazine.com/2017/7/5/opioid-overdose-medication-naloxone-on-short-supply-in-baltimore
- 18. Frank R, Glied S. Keep Obamacare to keep progress on treating opioid disorders and mental illnesses. The Hill. 2017 Jan 11. http://thehill.com/blogs/pundits-blog/healthcare/313672-keep-obamacare-to-keep-progress-on-treating-opioid-disorders
- 19. Frank R. Ending Medicaid expansion will leave people struggling with addiction without care. The Hill. 2017 Jun 20. http://thehill.com/blogs/pundits-blog/healthcare/338579-ending-medicaid-expansion-will-leave-people-struggling-with



- Tolia VN, Patrick SW, Bennett MM, Murthy K, Sousa J, Smith PB, et al. Increasing incidence of the neonatal abstinence syndrome in US neonatal ICUs. N Engl J Med. 2015 May 28; 372(22):2118–26. https://doi.org/10.1056/NEJMsa1500439 PMID: 25913111
- Patrick SW, Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, Davis MM. Neonatal abstinence syndrome and associated health care expenditures: United States, 2000–2009. Jama. 2012 May 9; 307(18):1934–40. https://doi.org/10.1001/jama.2012.3951 PMID: 22546608
- 22. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. Relationship of child-hood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. American journal of preventive medicine. 1998 May 31; 14 (4):245–58. PMID: 9635069
- Turney K. Stress proliferation across generations? Examining the relationship between parental incarceration and childhood health. Journal of Health and Social Behavior. 2014 Sep; 55(3):302–19. https://doi.org/10.1177/0022146514544173 PMID: 25138199
- Wildeman C. Parental imprisonment, the prison boom, and the concentration of childhood disadvantage. Demography. 2009 May 1; 46(2):265–80. https://doi.org/10.1353/dem.0.0052 PMID: 21305393